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The Growing Importance of Cost Accounting for Hospitals

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Abstract

Management scholars have identified several cost accounting methods that provide organizations with accurate estimates of the costs they incur in producing output. However, little is known about which of these methods are most commonly used by hospitals. This article examines the literature on the relative costs and benefits of different accounting methods and the scant literature describing which of these methods are most commonly used by hospitals. It goes on to suggest that hospitals have not adopted sophisticated cost accounting systems because characteristics of the hospital industry make the costs of doing so high and the benefits of service-level cost information relatively low. However, changes in insurance benefit design are creating incentives for patients to compare hospital prices. If these changes continue, hospitals' patient volumes and revenues may increasingly be dictated by the decisions of individual patients shopping for low-cost services and as a result, providers could see increasing pressure to set prices at levels that reflect the costs of providing care. If these changes materialize, cost accounting information will become a much more important part of hospital management than it has been in the past.

Introduction

Recently, calls for hospitals to be more transparent in their pricing have increased. Policymakers and health care professionals have focused a great deal of attention on finding ways to present price and quality information to consumers in an accessible and comprehensible manner, so that the consumer can make better informed decisions. Hospitals' efforts to prepare for price transparency have focused on developing systems and processes required to calculate patient and insurance-benefit-specific prices, communicating these prices to patients, and making arrangements to collect cost sharing due from patients (American Hospital Association, 2014). Ultimately, the hope is that value (price and quality) will become the basis of competition, and hospitals will be incentivized to reduce their prices by cutting their underlying costs (Herzlinger, 2002).

Hospital efforts to provide patients with understandable, usable price information will go a long way towards establishing a more transparent market for hospital services. Unfortunately, these efforts will not be sufficient to create the kind of price competition that reduces hospital costs. As patients gain better information about hospital service prices, they

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are likely to find wide, inexplicable variation in the costs of similar services (Newman, Parente, Barrette, & Kennedy, 2016; Revere, Delgado, Donderici, Krause, & Swartz, 2016; Tompkins, Altman, & Eilat, 2006). The prices that these newly-informed patients face will, in many cases, bear little relation to the underlying cost of delivering care (Dobson, DaVanzo, Doherty, & Tanamor, 2005). Before price competition can incent hospitals to reduce their operating costs, hospital pricing practices must change. Hospitals will have to set prices that relate to the cost of providing individual services instead of setting prices at levels that maximize profitability under contract pricing with insurers. This is an important step in achieving the ultimate goal of creating a marketplace in which hospitals compete on the basis of price. Unfortunately, little is known about the cost accounting systems hospitals are using to collect service-level cost information and the capabilities these systems afford the hospitals using them. As a result, it is difficult to anticipate how prepared hospitals are for market changes that could make service-level prices and cost information more important bases of competition.

This article begins by offering an overview of several cost accounting systems currently in use, and identifying strengths and weaknesses of each. Next, we describe the little that is known about the cost accounting capabilities of U.S. hospitals. The scant evidence available suggests that for most hospitals, cost accounting capabilities are rather limited. We suggest that the adoption of more sophisticated cost accounting systems has been hindered by pricing processes that emphasize price negotiations at the contract, rather than the individual service level. Under these pricing processes the benefits hospitals realize by implementing systems that provide detailed cost information are relatively modest. Organizational and environmental factors specific to the hospital industry may also make the cost of implementing sophisticated cost accounting systems prohibitively high, reducing the likelihood of adoption. The paper goes on to identify recent changes in payment systems that are likely to make service-level pricing, and hence cost accounting, a more important factor in hospital management. Finally, the paper discusses alternative views of the future of hospital markets in which the importance of cost accounting is more limited.

Cost accounting methods

Cost accounting is the process of estimating and classifying costs incurred by an organization. These costs can be analyzed at the organizational or departmental level, but Gapenski and Reiter have noted that “the holy grail of cost estimation is costing at the service or individual patient level” (2016). It seems Gapenski acknowledged the increasingly important role cost accounting is likely to play in the healthcare market. The most recent update of his widely-used textbook on health care finance and accounting included much-expanded coverage of techniques for estimating costs at the product or service level.

As different industries have evolved over time so have cost accounting methods (Wendt, 2014) and the management accounting research analyzing these methods (Kaplan & Porter, 2011). Different approaches to managerial and cost accounting have emphasized different components of the methodologies such as, accurate cost capture or the ability to capture financial and non-financial performance measures (Davis & Albright, 2004; Henri, 2006; Ittner, Larcker, & Meyer, 2003). There is a wide spectrum of costing methodologies (e.g.

value-based management, benchmarking, life cycle costing, and target costing) that can help inform managers. The literature has identified various cost management accounting techniques, such as, activity-based costing (ABC), activity-based management (ABM), time-driven ABC, target costing, balanced scorecards (BSC) and ratio of cost-to-charges (RCC) (Agbejule, 2006; Ax & Bjørnenak, 2005; Bonner, Hesford, van der Stede, & Young, 2012; Kaplan & Anderson, 2007; Zawawi & Hoque, 2010). This paper will focus on five specific cost accounting techniques seen primarily in the healthcare environment: traditional costing, activity based costing, time-driven activity based costing, performance-focused activity based costing and the ratio of costs to charges. (Bonner *et al.*, 2012; Selto & Widener, 2004).

Traditional Costing is a cost accounting methodology that allocates organizational overhead to a specific output based on a predetermined cost driver or by using a pre-determined percentage rate (Paulus, van Raak, & Keijzer, 2002). The traditional costing technique is easy to understand and apply. It requires minimal financial and/or managerial investment which helps explain its wide use and acceptance (McKenzie, 1999). However, these costing methods have been criticized for failing to account for differences in product/service lines and marketing channels (Velmurugan, 2010), and for producing inaccurate and unrealistic representations of a product or service's true cost (McKenzie, 1999).

Activity-Based Costing is a costing approach developed by Kaplan in the mid-1980s. Activity-based costing (ABC) has been the subject of numerous articles and books (Cooper & Kaplan, 1991; Gapenski & Reiter, 2016; Kaplan & Cooper, 1998). This approach has been widely adopted in public and private, service and managerial organizations (Lawson, 2005). Activity based costing is widely used in the preparation of budgets as it serves as a planning mechanism that shows the relationship between goal achievement and resource intensity (Namazi, 2009; Turney, 2010). Activity based costing takes a rational approach to product and service costing, since it begins with an effort to identify the fundamental activities and resources involved in producing an output (Namazi, 2009). The indirect expenses are then allocated to the activities using cost drivers that are carefully selected to reflect the use of each particular resource pool. This methodology has been found to produce accurate and rational financial management information (Velmurugan, 2010), and to provide information that helps managers make accurate product mix decisions, product price calculations, and consumer profitability analyses (Hornngren *et al.*, 2010).

The basis for ABC is a belief that all activities exist to support the production and delivery of goods and services and that all indirect costs can be traced and allocated to individual products and services (Velmurugan, 2010). Activity based costing provides managers a more accurate view of the 'true' cost of their products and services. The accuracy of the ABC can lead to different evaluations of costs and profitability as compared to other simpler costing approaches (Namazi, 2009). Activity based costing is designed to provide more accurate information about product costs so that management can focus its attention on value-added activities (Velmurugan, 2010). Activity based costing has been found to generate information that is superior to traditional systems (McGowan, 1998). The use of ABC systems has been found to help organizations make better product mix decisions, product price calculations, and consumer profitability analyses (Hornngren *et al.*, 2010) The use of ABC is also associated with improved firm performance (Banker, Potter, & Schroeder, 1995;

Ittner *et al.*, 2003) and increased manager and employee satisfaction (Swenson, 1995; McGowan & Klammer, 1997).

However, ABC is not without its drawbacks. The ABC process has been criticized as being resource intensive for complex organizations (Moisello, 2012). Identifying the appropriate cost drivers, an essential step in the ABC process, requires significant managerial time and financial investment. Moreover, significant investments are required to maintain an ABC system as the organization's processes change (Moisello, 2012). Activity based costing systems can become outdated very quickly if the assumptions regarding the cost drivers are not updated to reflect organizational changes. The selection of cost drivers is also subjective. Activity based costing may allow managers to select cost drivers that reflect their personal preferences for particular inefficient processes, under-utilized resources or unprofitable products (Kaplan & Anderson, 2004).

Time-Driven Activity Based Costing (TDABC) is a managerial accounting approach introduced in 2004 by Kaplan and Anderson. Time-driven activity based costing is an attempt to overcome some of the weaknesses associated with ABC. TDABC differs from traditional ABC, in that time is used as the primary cost driver. The assumption underlying the TDABC method is that most resources (i.e. manpower, equipment, and facilities) have capacities that can be measured in terms of time (Namazi, 2009). TDABC does not require the identification of 'activities' that the ABC method does. With TDABC no individual activities are needed because the default cost driver is time. TDABC reduces the influence of personal preferences on cost estimation by eliminating managerial discretion in cost driver selection.

Time-driven activity based costing is simpler to implement than ABC and it integrates well with available data from electronic resource planning systems. Time-driven ABC also enables fast and inexpensive cost model maintenance (Kaplan & Anderson, 2004, 2007). However, the features that make TDABC easier to implement can reduce its usefulness relative to ABC. Under the TDABC system, the activities associated with the indirect expenses are not identified. Time-driven ABC uses a single activity measure and this single cost-time relationship may not represent the actual cause-effect behavior of the costs (Namazi, 2009). The identification of specific drivers can potentially help identify inefficient processes which is one of the most valued components of ABC. Using time as a measure for practical resources may be relevant for some small service firms but not suitable for other more complex enterprises with different department outputs since indirect costs cannot be tied back to the employees' work time (Namazi, 2009). This may hold especially true in a healthcare organization where different activities may require a wide range of skill sets.

Performance-Focused Activity Based Costing (PFABC) is a third iteration of ABC. PFABC is a hybrid ABC method that attempts to overcome some of the weaknesses associated with TDABC and ABC. PFABC attempts to extend the value of this managerial costing system as a means to examine organizational performance. PFABC is an intensive costing process that requires several steps to properly allocate indirect expenses. PFABC is similar to ABC in that it requires the identification of major cost activities but dissimilar to TDABC in the ways that activities' resource use is determined. With PFABC, the actual resources for each

activity can be assessed in a variety of ways, including interviews, surveys, or based on actual utilization of time, materials or other resources (Namazi, 2009). This is a difference between PFABC and conventional ABC, where the cost driver is determined via specific activities or TDABC where the cost driver is time.

The other significant difference between PFABC and other costing approaches is that PFABC calculates the cost drivers' standard rate (quantity) and price variances. This helps managers evaluate the true drivers of cost by separating the analysis of volume and price variances. The extra processes in the PFABC approach make PFABC more difficult to establish but enable PFABC to offer a richer and more detailed examination of the organization's activities.

PFABC does hold several advantages over the traditional ABC and TDABC (Namazi, 2009). PFABC focuses more on the implementation stage by identifying each important activity explicitly and directly mapping the resource costs to the activities. PFABC's focus on budget variances also helps managers to identify excess capacity. PFABC offers managers more information than other accounting methods. It is a powerful planning and performance evaluation tool, as it can identify variances, such as rate, efficiency, and volume variances. It is the one costing mechanism that is used to examine the efficiency and effectiveness of an organization.

Ratio of cost to charges (RCCs) is a costing method specific to the health care industry. Hospitals participating in the Medicare program are required to file annual Medicare Cost Reports with the Centers for Medicare and Medicaid Services (CMS). The cost report uses traditional costing methods to allocate overhead costs to clinical departments, allowing hospitals to estimate the full cost of each revenue-producing department. Hospitals can pair these estimates with information about the total charges for all services provided by a clinical department to compute a department-level ratio of cost to charges (RCC). The RCC, when multiplied by the hospital's charge for a specific service, can be used to estimate the cost of providing an individual.

Service-level costing using RCCs is a simple exercise. Using RCCs requires virtually no additional investment of managerial time or financial resources because department level costs are readily available from the Medicare Cost Report and information on total and per service charges are readily available as well. However, the service cost estimates made using this method are of questionable accuracy. For one thing, the Medicare cost reporting process may contain features that encourage hospitals to distort their true costs (Magnus & Smith, 2000). The RCC costing method also relies on the tenuous assumption that the charges for all the services provided by a clinical department have a common markup over costs (Gapenski & Reiter, 2016). There is no reason to believe this kind of constant markup exists. As a result, many cost estimates made using RCCs are inaccurate. One estimate suggests that over 30% of the DRG cost estimates within a hospital differ from the estimates made by more sophisticated methods by greater more than 10%. (Shwartz & Young, 1995)

Observations on the state of hospitals' cost accounting efforts

While the literature describing the features of costing systems and advocating increased use of particular systems is extensive, there is relatively little information available about what types of cost accounting systems are most frequently used in U.S. hospitals today. Overall, U.S. hospitals have been slow to adopt the more sophisticated forms of cost accounting like ABC, TDABC, PDABC or even traditional costing methods. A 2007 report from the Healthcare Financial Management Association (HFMA) reports that 73% of surveyed hospitals rely on the RCCs or Medicare cost allocation methods for product cost information (Healthcare Financial Management Association, 2007). An older survey of academic medical center CFOs suggested that in 2000, 16% of surveyed CFOs were “certain” in their plans to implement ABC in their organizations (Smith *et al.*, 2000). Unfortunately we do not know how many of the surveyed CFOs were able to successfully implement and maintain ABC systems. It is also important to remember academic medical centers are some of the largest hospitals in the U.S. and are best-able to bear the fixed costs of creating and maintaining accounting systems. It is unlikely the experience of these facilities is representative of U.S. hospitals broadly. Although there is little in the way of academic research on hospitals' cost accounting capabilities, the consensus among industry experts seems to be that hospitals' cost accounting capabilities are lacking. Accounting experts have gone so far as to say that “...there is an almost complete lack of understanding of how much it costs to deliver patient care...Instead of focusing on the costs of treating individual patients with specific medical conditions over their full cycle of care, providers aggregate and analyze costs at the specialty or service department level” (Robert S Kaplan & Porter, 2011). This begs the question, why have hospitals been slow to adopt systems that hold a great deal of theoretical promise? The answer is that, for hospitals, the costs of implementing sophisticated cost accounting systems are relatively large while traditionally the benefits to doing so have been modest.

High costs of implementing accounting systems—Hospitals are particularly costly organizations in which to implement cost accounting efforts. For one thing, they produce a staggering number of products and services ranging from 12,000 to 45,000 individual items (Dobson *et al.*, 2005). Next, the specific services that individual patients need can vary drastically, even within the same diagnosis related group (DRG) categories that Medicare and many payers use for payment (Taheri, Butz, Dechert, & Greenfield, 2001). As a result, determining the cost of an output (in this case a DRG) presents the typical cost accounting challenges associated with allocating indirect costs and an additional challenge. Even if costs are perfectly measured, the cost of providing a particular kind of care can vary from patient to patient depending on the patient's clinical needs and the preferences of the treating physician (Feinglass, Martin, & Sen, 1991). Clearly, the hospital production process is complex and even the normally simple process of defining what outcome is being costed is difficult in the context of hospital operations. All these factors make the cost of implementing and maintaining a sophisticated cost accounting system relatively high for healthcare organizations.

Another notable cost of implementing a sophisticated cost system is the potential resistance from the facility's medical staff. To the extent that a sophisticated costing system like ABC

would assist hospitals in standardizing clinical processes, individual physicians may feel that their professional judgement is being impeded and may oppose efforts to develop more sophisticated systems (Cardinaels, Roodhooft, & Herck, 2004). This conflict may be reinforced by the traditional separation between payments for hospitals' "facility fees" and "professional fee" payments made to physicians practicing in hospitals. Hospitals reimbursement is, for the most part, case-based while a significant portion of a physician's reimbursement comes on a fee-for-service basis, so while the hospital has an incentive to reduce per-episode resource use, the physician does not.

Modest benefits of cost system implementation—The costs of implementing a cost accounting system for a hospital are significant, yet the benefits of a sophisticated cost accounting system may be low for many hospitals. The reason for this limited benefit relates to hospitals' perceived inability to influence their prices. Many hospitals feel that their ability to improve payment rates is limited, even if they develop sophisticated cost accounting systems (Arrendondo, 2014). Moreover, even hospitals that can exert influence on the prices they charge tend to ignore service-level cost information in their pricing negotiations. In fact, in setting charges (which are seldom the actual prices paid for hospital services) large urban hospitals only report using cost information about half of the time while rural hospitals only report using cost information a quarter of the time (Dobson *et al.*, 2005). This is probably due to the traditional methods used to price and reimburse hospital services. First, most U.S. patients have traditionally been insured and had plans that kept them relatively insulated from the full cost of medical care (Reinhardt, 2006). As a result, price negotiations have taken place not with individual patients purchasing single services, but with insurance companies purchasing a mix of services on behalf of their beneficiaries. For hospitals, setting the price of individual services at rational, profitable levels has not been as important as negotiating entire contracts that proved profitable (Tompkins *et al.*, 2006). As a result hospitals have not had to profitability price (and hence accurately cost) individual inpatient services, so long as they were able to negotiate acceptable insurer contracts (Hilsenrath, Eakin, & Fischer, 2015; Tompkins *et al.*, 2006). Since negotiations have taken place at the contract rather than the individual service level, hospitals have realized relatively little benefit from investing in cost accounting systems that generate accurate cost estimates at the service or patient level. However, the hospital industry is changing in important ways that may increase the benefits of having a sophisticated cost accounting system while reducing the costs of implementation.

Market changes poised to increase the importance of service-level price negotiations

Firms' decisions to adopt or change their cost accounting methodologies result from various organizational (Abernethy & Bouwens, 2005; Cavalluzzo & Ittner, 2004; Chapman, 2005; Granlund & Mouritsen, 2003), technical (Waweru, Hoque, & Uliana, 2004), and economic factors (Lin & Yu, 2002). The functionalist view of contingency theory states that organizations will develop or adopt control of management systems to achieve a goal or outcome. However, the goals or outcomes will be influenced by the external environment, technology, organizational structure, size, culture and strategy (Chenhall, 2003). The various cost accounting methodologies (ABC, TDABC, PFABC, and RCCs) and systems have emerged in response to the different information needs of organizations and industries

(Chenhall & Langfield-Smith, 2003; Kaplan, 1984). The type of accounting system that a hospital decides to adopt or utilize will be contingent on organizational and environmental factors of the hospital (Tiessen & Waterhouse, 1983). Price transparency and changes in individuals' insurance benefits will certainly bring important changes to the hospital marketplace and these changes are likely to affect the costs and benefits associated with hospitals' adoption of cost accounting systems.

Despite the traditional importance of contract-level negotiations in hospital pricing, the industry is currently experiencing changes that have the potential to increase the importance of pricing individual services competitively. These changes include an increase in coinsurance and deductibles, new reference pricing benefits, and an increase in media attention directed at health care pricing structures. Each of these trends will make it more important for hospitals to establish new prices that reflect the costs of providing particular services.

In the past 10 years patients have experienced a marked increase in the proportion of health care costs they pay directly. These increases have come in the form of rising deductibles and increases in the prevalence of coinsurance. In 2016 64% of workers with employer-provided health insurance faced coinsurance requirements for inpatient hospital care. Similarly, 66% of covered workers faced coinsurance requirements for outpatient surgery. For both services the average amount of coinsurance required was 19%. (Kaiser & HRET, 2016). These are dramatic increases in the number of individuals exposed to coinsurance requirements. In 2006 only 22% of covered workers faced coinsurance for inpatient hospital stays and 24% of covered workers faced coinsurance for outpatient surgery (Kaiser & HRET, 2006).

Rising deductibles may also provide an incentive for individuals to seek out low-cost providers. Currently individual deductibles average \$1,478 and family deductibles average \$4,343. For the 29% of covered workers in high-deductible plans, deductibles are even higher, averaging \$2,031 for individuals and \$4,321 for families (Kaiser & HRET, 2006). It is true that these deductibles are likely to be met quickly by the cost of an inpatient stay, since commercial insurance payments to hospitals average \$12,361 for an inpatient stay (Cooper *et al.*, 2015). However, rising deductibles may still influence the provider choice of individuals undergoing lower-cost outpatient or imaging procedures.¹

High coinsurance requirements and deductibles create an incentive for patients to compare prices of different providers within their insurers' networks. Beneficiaries with high coinsurance and deductibles still benefit from the rates negotiated between insurers and hospitals, but even prices offered to commercially insured patients can have tremendous variance within a single hospital market (Newman *et al.*, 2016; Revere *et al.*, 2016). Increasing pressure on employers to control health care costs and the (now delayed) implementation of the Cadillac Tax from the Affordable Care Act, make it likely that employers will continue to shift the cost of care to employees. If this is the case, hospitals may find it necessary to re-price services based on the cost of providing those services rather

¹For example, commercial reimbursement for colonoscopies averages \$1,694 and for lower-limb MRIs averages \$1,332.

than simply pricing services by applying a standard percentage updates to prior years' prices.

Deductibles and coinsurance requirements are undoubtedly growing. However, another strategy insurers are using to sensitize consumers to the cost of care is reference pricing. Under reference pricing arrangements, insurers limit reimbursement for a defined medical service to a predefined amount. This amount is usually sufficient to cover the cost of services at select providers. Patients that wish to use higher-cost providers are responsible for the difference between the cost they incur and the reference price. Reference pricing benefits have been employed by large employers including the California Public Employees' Retirement System (CalPERS) (for orthopedic procedures) and Safeway (for imaging and lab tests) (Robinson & MacPherson, 2012). Reference pricing benefits have been shown to affect beneficiaries' choice of provider and to induce price decreases from high-cost providers (Robinson & Brown, 2013). If reference pricing benefits become more popular, hospitals may require a greater understanding of the cost of providing individual services so that they can establish prices that attract patients without generating financial losses.

Changes in insurance benefits have the potential to make the prices, and hence the costs, of individual services a more important consideration for hospitals. However, the confusing system for pricing hospital services and the inconsistencies it creates have attracted an increasing amount of attention from government regulators and the popular media. In his popular 2013 article, Stephen Brill of *Time Magazine* called hospital chargemasters "the poison coursing through the health care ecosystem" (Brill, 2013). Since then the Centers for Medicare and Medicaid Services (CMS) have released charge data for hospital services and these releases have prompted a number of newspaper articles commenting on the large variation in charges (Meier, McGinty, & Creswell, 2013; Radnofsky & Barry, 2013). On another front, state legislatures continue to be active in developing legislation requiring health care providers to offer pricing information (Report Card on State Price Transparency Laws, 2015). If successful, efforts may encourage service-specific shopping or at least cause providers to increase their focus on service specific pricing that can be justified by a reliable and valid estimate of the cost of producing a specific service.

Alternative future states

Increasing price transparency will likely create market pressure that pushes hospitals to alter their pricing processes so that prices reflect the costs of providing individual services. In this version of the future, it will be important that hospitals adopt new cost accounting systems so that they can better-understand their service-level costs. However, predictions about the future of the health care industry are extremely difficult to make and there are other plausible views of the future in which cost accounting efforts continue to play a minor role in hospital management. One such circumstance could occur if capitated payments become pervasive reimbursement arrangements. In a capitated payment environment, managers may shift their focus from understanding service-level costs to other strategies. Attempts to increase revenues by expanding the population being managed and to reduce costs by improving care management efforts may be preferred to strategies that emphasize operating

cost reductions. This sort of strategic behavior was seen in at least one integrated delivery system operating in the late 1990s. (Robinson & Dratler, 2006).

The widespread adoption of narrow networks is another scenario in which cost accounting could continue to play a minor role in hospital markets. Narrow networks plans are insurance benefits that offer relatively low premiums but drastically limit beneficiaries' provider choice. Many of the plans offered through the federal and state exchanges are narrow network plans. These plans employ a very different strategy of cost reduction than plans that choose to increase coinsurance or deductible amounts. Plans that choose to increase coinsurance or deductible amounts encourage beneficiaries to compare the prices offered by providers within their networks (utilization effects). This puts more pressure on providers to offer rational pricing for individual services. On the other hand, to reduce costs narrow network plans must rely on insurers' ability to negotiate lower-cost contracts with providers. If narrow network plans dominate the marketplace, the provider contract and not the individual service will continue to be the primary level at which prices are negotiated. In this scenario hospitals may avoid the need to reform their cost accounting efforts.

Conclusion

In the short term, barriers to price transparency include finding ways to communicate complex information on prices, provider quality, and financial liability to consumers in ways that they can understand. If these efforts meet with even partial success, hospitals are likely to encounter new challenges. Patient volumes and revenues may increasingly be dictated by the decisions of individual patients shopping for low-cost services and as a result, providers will see increasing pressure to set prices at levels that reflect the costs of providing care. Though a seemingly straightforward objective, this would be a marked change from hospitals' current situation in which the primary levers of financial viability are their ability to gain volume through inclusion in payer networks and their ability to negotiate profitably at the contract level. If these changes materialize, cost accounting information will become a much more important part of hospital management than it has been in the past.

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